

REMARKS

STATUS OF CLAIMS

Claims 1-6, 8-13 and 15-20 are pending and stand rejected.

Therefore, claims 1-6, 8-13 and 15-20 are now presented for consideration.

No new matter is presented by the claim amendments, accordingly, entry and approval of same are submitted to be proper and are respectfully requested.

REJECTIONS UNDER 35 U.S.C. §103(a)

In the Office Action at page 2, item 1, claims 1, 10 and 16-20 are rejected under 35 U.S.C. §112, second paragraph as being indefinite.

Claims 1, 10 and 16-20 have been amended to overcome the rejection under U.S.C. §112, second paragraph

Reconsideration is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §103(a)

In the Office Action at page 3, item 2, claims 1-6, 8-13, and 15-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Manning et al. (U.S. Patent No. 5,898,756) in view of Rosen et al. (U.S. Patent No. 5,864,607) and Murray (U.S. Patent No. 4,099,033) and further in view of Bulfer (U.S. Patent No. 6,208,966).

Reconsideration is respectfully requested.

In the Office Action at page 4, lines 3-4, the Examiner acknowledges that Manning et al. does not teach "actual disconnection of lines and blocking completely, command signals."

However, in the Office Action at page 4, lines 4-7, the Examiner contends that Manning et al. teach "attenuation of DTMF signals on lines via a switchable a.c. load.... The purpose and effect of disconnecting a telephone unit from the network or attenuating a signal to the point that it cannot be recognized or picked up by the network is the same."

Applicants submit that the effect of operating the Manning et al. parallel-connected device is not the same as that of the present invention recited, for example, in claim 1. Manning et al. discloses a parallel-connected device "to severely attenuate signals sent between the telephones 30, 32 and the central office 5 ... [with] a series connected capacitor C1 and resistor R1 ... [providing] a low impedance path between tip and ring." (See Manning et al. at column 4, lines 23-28.) Manning et al. discloses that "the length of the cable and telephone wiring connecting the dialer to the path between the off-hook phone and the central telephone office does affect the attenuation, since a longer path generates higher resistance and lower attenuation. (See Manning et al. at column 5, lines 57 to 61.) This means that the attenuation in the Manning device is dependent on operating conditions (i.e., the length of the cable and telephone wiring connecting the dialer to the path between the off-hook phone and the central telephone office). Furthermore, Manning et al. discloses that "increasing attenuation has the undesirable effect of increasing the time required to detect that a phone has been hung up." (See Manning et al. at column 5, lines 37-39.) This means that the attenuation in the Manning device is limited by other operating criteria (i.e., the time required to detect an on-hook condition). Moreover, Manning et al. discloses that, based on certain operating conditions, "the phone may be unable to generate DTMF signals, which may leave an insufficient time to detect the two tones of the DTMF signals." (See Manning et al. at column 6, lines 15-27). This means that generation of DTMF signals by the Manning et al device is not ensured.

According to the present invention recited in claim 1, the problems inherent in the Manning et al. device are avoided. This is because, the Manning device applies an a.c. load across the tip and ring to produce a low impedance path therebetween and operational effects thereof are completely different from the present invention recited in claim 1, in which "a switch [is provided] ... to selectively open-circuit the telephone network from either of the telephone unit or the data processing device, and when the telephone network is open-circuited from either of the telephone unit or the data processing device, completely blocks transmission of the DTMF command signal from the telephone unit to the telephone network and allows transmission of the DTMF command signal directly to the data processing device when the DTMF command signal indicates one of the plurality of telephone services." Thus, the problems associated with a low impedance a.c. load are completely avoided in the present invention recited in claim 1.

In particular, contrary to the present invention of claim 1, Manning et al. cannot “selectively open-circuit the telephone network ...” (emphasis added), and, furthermore, when the telephone network is open-circuited from either of the telephone unit or the data processing device, does not “completely [block] ... transmission of the DTMF command signal and [allow] ... transmission of the DTMF command signal directly to the data processing device ...” Moreover, depending on operating conditions, the Manning et al. device may not be able to even severely attenuate such signals or even generate DTMF command signals, since the structure of the Manning et al. device includes the low impedance a.c. load between the tip and ring lines.

Further, in the Manning et al. transmission-inhibiting device, to determine whether a DTMF command signal sent from the telephone network is detected is not possible, because Manning et al. does not disclose or suggest any difference between the telephone unit and the telephone network connected to the transmission-inhibiting device.

According to the present invention recited in claim 1 a signal transmission inhibition unit, when the telephone network is open-circuited from either of the telephone unit or the data processing device, completely blocks transmission of the DTMF command signal from the telephone unit to the telephone network and allows transmission of the DTMF command signal directly to the data processing device when the DTMF command signal indicates one of the plurality of telephone services.

Thus, in the present invention recited in claim 1, it is possible to ensure that the DTMF command signal sent from the telephone unit and indicating one of the plurality of telephone services is not transmitted from the telephone unit (i.e., the sending-side user) of the communication support system to any telephone unit (i.e., the receiving-side user) over the public switched telephone network.

Murray Reference

In the Office Action, the Examiner contends that Murray teaches:

a switch 10, for short-circuiting the telephone lines when a call or signals are to be restricted and allowing signals to pass through the lines when for example, a call is authorized or an emergency and a special code is dialed. (Abstract, Figs. 1 and 2, Col. 2, line 1 – Col. 3, line 41 of Murray). It again would [have] been obvious to one of ordinary skill in the art to have employed an actual signal

blocking method and device such as taught by Murray inasmuch as this is a well known and old method of inhibiting DTMF signals. Whether inhibiting as taught by Manning et al. or actually blocking as taught by Murray, the end-result of blocking certain DTMF signals is accomplished.

Applicants respectfully disagree with the Examiner and request the Examiner to review the disclosure of Murray at column 2 lines 1-45. In particular, Murray discloses a switch 10 short-circuits the dial impulse springs 4 (i.e., used for pulse dialing). That is, the Murray switch 10 does not short-circuit telephone lines, but, instead, short-circuits the dialing mechanism such that no dialing can occur from the telephone instrument 2. Furthermore, the telephone instrument 2 of Murray is not capable of generating Dual Tone MultiFrequency DTMF signals, since Murray only discloses generation of dial pulses.

Accordingly, the teachings of Murray cannot be combined with the teaches of Manning et al. to produce the present invention recited in claim 1, because neither Murray nor Manning et al. disclose or suggest "selectively open-circuiting the telephone network ..." and, furthermore, "when the telephone network is open-circuited ... completely ... [blocking] transmission of the DTMF command signal and ... [allowing] transmission of the DTMF command signal directly to the data processing device."

Rosen et al. Reference

Rosen et al. discloses a computer system which communicates "between the PIU-connected telephones 104 and 108 and the computer system 100 ... through radio frequency (RF) communication between the PIUs 106 and 110 and the CIU 102 over the internal telephone network line 130. ... When a PIU-connected telephone is initially picked up, the PIU supplies power to the telephone instead of the phone company 134 and thus prevents the telephone from seizing the telephone network line 130. This effectively isolates the telephone from the external phone line 128, allowing the telephone to communicate with the CIU 102 by RF carrier signals sent over line 130. When the non-PIU telephone 114 is picked up, the CIU 102 turns off its carrier signal to force all telephones to revert to ordinary telephone operation." (See Rosen et al. at column 4, line 58 to column 5, line 6.)

Accordingly, Rosen et al. does not disclose or suggest "to selectively open circuit the telephone network from either of the telephone unit or the data processing device" and furthermore, does not disclose or suggest "a signal transmission inhibition unit including a switch connected between the telephone network and either the telephone unit or the data processing device to switch therebetween ... and selectively open-circuit the telephone network from either of the telephone unit or the data processing device, and when the telephone network is open-circuited from either of the telephone unit or the data processing device, completely blocks transmission of the DTMF command signal and allows transmission of the DTMF command signal directly to the data processing device" (as recited in claim 1). This is because the Rosen et al. system uses RF carrier signals sent over the network line 130 (see, for example, Fig. 1). Thus, the Rosen et al. telephone network is not switched between either the telephone unit or the data processing device, as the Rosen et al. system merely uses the existing telephone network line 130 but prevents the telephone from seizing the telephone network line 130.

Bulfer, which is directed to "telecommunications network service for converting spoken words to individual DTMF signals" (see Bulfer at column 2, lines 25-27), does not suggest anything related to the above-mentioned distinguishing features recited in claim 1.

Accordingly, claim 1 patentably distinguishes over the cited art taken singularly or in any proper combination for at least the above noted reasons and is submitted to be allowable.

Claims 10, 16-20 patentably distinguish over the cited art for reasons similar to those of claim 1 and are also submitted to be allowable.

Claims 2-6, 8-9, 11-13 and 15, which depend from claims 1 and 10, are submitted to be allowable for the same reasons as those of claims 1 and 10, as well as for the additional recitations therein.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is respectfully solicited.

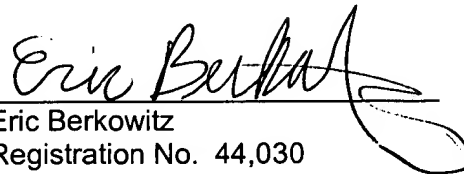
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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